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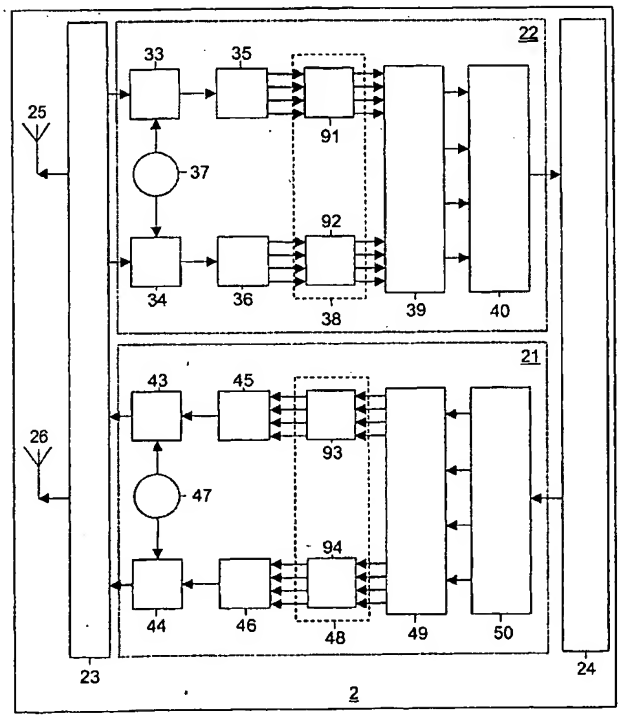
(54) Title: DIVERSITY SYSTEM FOR TRANSMITTING A SIGNAL WITH SUB-CARRIERS



(57) Abstract: In diversity systems (3) for transmitting signals (4) comprising sub-carriers from first units (1) to second units (2,2a), receivers (22,22a) coupled to antennas (25,26) located at different positions for receiving the signals (4) are provided with transforming modules (38,38a) for converting received antenna signals into sub-carrier-vectors per sub carrier and per antenna (25,26) and processing modules (39,39a) for processing the sub-carrier-vectors per sub-carrier. Then, the received antenna signals are no longer splitted into arbitrary sub-bands, but they are splitted in accordance with the sub-carriers already present in the signal (4) to be transmitted. For transmitting return signals (5) comprising sub-carriers from the second units (2,2a) to the first units (1), transmitters (21,21 a) coupled to antennas (25,26) located at different positions for transmitting the return signals (5) are provided with reverse processing modules (49) for generating sub-carrier-vectors per sub-carrier and per antenna and with reverse transforming modules (48,48a) for converting the sub-carrier-vectors into antenna signals to be transmitted. The overall throughput of the diversity system (3) is improved.

WO 2005/074164 A1

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